

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims**

Claim 1 (previously presented): A non-annealed, as-grown single crystal of calcium fluoride obtained by a single crystal pulling method and having a straight barrel part diameter of 17 cm or more, a straight barrel part length of 8 cm or more and a birefringence of not more than 3 nm/cm in a non-annealed state.

Claim 2 (original): The as-grown single crystal of calcium fluoride as claimed in claim 1, wherein the standard deviation of the birefringence is not more than 2.0 nm/cm.

Claim 3 (cancelled).

Claim 4 (original): The as-grown single crystal of calcium fluoride as claimed in claim 1, wherein the birefringence is less than 1 nm/cm.

Claim 5 (original): The as-grown single crystal of calcium fluoride as claimed in claim 2, wherein the birefringence is less than 1 nm/cm.

Claim 6 (original): The as-grown single crystal of calcium fluoride as claimed in claim 4, wherein the birefringence is about 0.892 nm/cm.

Claim 7 (original): The as-grown single crystal of calcium fluoride as claimed in claim 5, wherein the birefringence is about 0.892 nm/cm.

Claim 8 (new): A process for preparing a single crystal of calcium fluoride having a straight barrel part diameter of 17 cm or more, a straight barrel part length of 8 cm or more and a birefringence of not more than 3 nm/cm, comprising:

pulling up the single crystal from a molten calcium fluoride, without subsequent annealing treatment.

Claim 9 (new): A process for preparing the crystal of claim 1 comprising pulling up a single crystal from molten calcium fluoride, without subsequent annealing treatment.